

ABSTRACT OF THE DISCLOSURE

An electromagnetic actuator for actuating a gas-reversing valve on a piston internal combustion engine includes two electromagnets. Each electromagnet includes a one yoke body presenting a pole face. The pole faces of the two electromagnets face each other at a distance. Each yoke body has two parallel grooves that are open toward the pole face and form a coil window with a coil disposed in the coil window. An armature is arranged to move back and forth between the pole faces counter to the force of at least one restoring spring. The two electromagnets each have a different load profile.

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